

MOBILIZATION OF THE AGRICULTURAL SURPLUS IN CHINA FOR RAPID ECONOMIC DEVELOPMENT 1952-1957

JOHN T. MACRAE

IT IS WITHOUT DOUBT true to say that the Chinese treatment of the critical problem of the agricultural surplus during the first years of industrialization was effective in mobilizing an adequate surplus for the towns and deficit rural areas. Between 30-40 per cent of available production of food-grains was marketed (cf. 5 per cent quoted for India during their FFYP)¹ between 1952-57. There was no evidence, despite frequent talk in the literature of food crises, of any starvation on a national scale, nor did the Chinese require any food-grain imports at all during the 1950s. There was no scissors crisis, no mass urban queueing, no widespread scavenging such as had been Russia's experience. The achievement appears all the more remarkable when one recalls the extremely difficult conditions that prevailed in the agricultural sector at the start of this decade—high and increasing rates of population growth, pressure on the land, low soil fertility through lack of fertilizer application, very poor quality soil in many marginal areas that just had to be cultivated if life was to continue, etc.

The effectiveness of the Chinese mobilization cannot be considered in isolation from the character of the political régime. The ways and means open to the Communists, for extracting the surplus, were much more numerous, and initially effective, than those open to a system based on parliamentary democracy. But it is also true to say that the Chinese, unlike the Indians, understood the vital significance of the surplus both earlier and better, than their overpopulated neighbour. As early as 1953, it was realized that the rate of growth of the surplus or, more generally, the rate of growth of agriculture *governed* the rate of industrialization possible. The Indians, by the mid-sixties had still not fully realized this fundamental issue.

From 1952-57, it seems likely that the Chinese produced enough food to feed adequately both their immense rural and rapidly growing urban populations. However, if, in absolute terms, the mobilized surplus was adequate, it failed to grow either as fast as the rate of growth of the population it had to feed (the non-agricultural population), nor relative to the rate of growth in agriculture. The marketable ratio, defined as that percentage of total output that was marketed, reached a peak in 1954 and declined until 1957. The important questions to answer are: (1) What influences were at work to account for the failure of the surplus to grow fast enough—why did urban availability per head of food-grains

¹ [4].

decline consistently throughout the period? (2) Secondly, what measures did the Communist régime adopt to try to extract the surplus? (3) Thirdly, what appreciation did they give to the vital question of individual incentives?

The period of 1952-57 in China was a period of immense upheaval in an economic sense for the peasants, encompassing such revolutionary changes of situation as land reform, formation of co-operatives and then collectives, the abandonment and then reintroduction of the free market, unstable weather conditions . . . that the trends we find in the statistics are merely the final outcome of the sum of individual reaction and adaption to these changes that were overtaking the Chinese peasantry. I hope to indicate firstly what the main trends were in the provision of surplus output of food-grains; secondly, to indicate some of the important measures adopted by the Communists to extract the surplus, and lastly, to suggest some tentative reasons for the failure of the surplus to grow in pace with urban demands arising out of industrialization.

I

It is interesting, first, to note the different model involved in a communist system as opposed to a capitalist system. In the latter, the surplus is usually represented as the region to the north of the wage curve when this is superimposed on the Marginal Productivity of Labour curve. However, in the communist system, hired wage labour as a determining factor of the marketable surplus has no meaning: rather the surplus is that percentage of total output of the individual unit, be it a farmer or a co-operative, which remains after the needs of his own consumption, his seed investment, costs, fodder and possibly compulsory quotas and taxes are deducted. However, since taxes in kind and quotas are, in fact, part of the real surplus, we can say that the total surplus is that excess of output

TABLE

Year	Western Estimate Output per Head (kg)	Chinese Official Estimate Output per Head (kg)	Total Popula- tion ¹⁾ (m)	Agricul- tural Popula- tion ²⁾ (m)	Urban Popula- tion (m)	Agricul- tural Consump- tion ²⁾ (mmt)
1952	296	275	569	428.5	69	85.7
1953	284	270	582	435.5	74.6	87.1
1954	282	268	595.4	440	79.6	88.0
1955	301	288	609.1	451	82.2	90.2
1956	278	291	623.1	457	86.0	91.4
1957	286	290	637.4	466	90.6	93.2

¹⁾ Assuming rate of growth = 2.3% per annum.

²⁾ Using the percentage of agricultural population to total population given in Chi-Ming Hou's article "Manpower, Employment and Unemployment," in *Economic Trends in Communist China*, eds. W. Galenson, A. Eckstein, and T. C. Liu (Chicago: Aldine Publishing Co., 1968).

over basic needs for (a) this season's consumption of both humans and animals, and (b) next season's sowing, together with any costs incurred, such as wastage and reserves required.

In terms of a formula: $MS = TP_A - TC_A$
or $MS/TP_A = 1 - APC_A$: the marketable ratio.

MS = Marketable surplus.

TP_A = Total production.

TC_A = Total agricultural consumption.

APC_A = Average agricultural propensity to consume.

APS_A = Average agricultural propensity to save.

Since $1 - APC_A = APS_A$, the marketable ratio is no more than a disguised real savings ratio (Nurkse) in the agricultural sector.

In the first table are the various estimates, both Western and Official, of per capita production and the potential and actual marketed surplus and ratio. There are several interesting points to note. Output per capita, as a crude indication of surplus availability shows no consistent improvement although the trend is probably upwards. However, if we follow some economists and value subsistence consumption at 165 kg per person per annum, then there exists an adequate surplus above subsistence needs to meet the tax obligations, etc. . . . mentioned above. But, 165 kg per person, per annum, seems to be too low and I have calculated the potential surplus, assuming a per capita consumption of 200 kg per head of agricultural population to get a potential measure of the surplus that can be compared with the actual surplus, defined as tax in kind, plus sales to Government, plus sales on the free market, as given by Ishikawa.² The potential surplus gives some idea of what the surplus of the peasants would be if we detract from individual incentives (a) to reduce or misreport total production, (b) to increase

I

<i>Western Estimate Total Output (mmt)</i>	Available for Food- grains ⁴⁾ (mmt)	Potential M. Surplus (mmt)	Potential M. Ratio ⁵⁾ (%)	Actual M. Surplus ⁶⁾ (mmt)	Actual M. Ratio (%)
170	142	56.3	38.9	35	31
166	141	53.9	35.4	45.05	39
170	145	57.0	38.2	48.9	40
185	157	66.8	42.6	46.25	35
180	153	61.6	40.6	42.9	31
185	157	63.8	40.6	44.0	32

³⁾ Assuming per capita consumption = 200 kg per person, per annum.

⁴⁾ Applying a reduction factor for processing, seed and fodder (0.681).

⁵⁾ Potential marketable surplus divided by total available output.

⁶⁾ S. Ishikawa, "Resource Flow between Agriculture and Industry: The Chinese Experience," *Developing Economies*, Vol. 5, No. 1 (March 1967).

personal consumption. The wide divergence of the two series is an indication that both these factors were likely to have been at work throughout the period under discussion.

The most important point is the decline in both the ratios in the years after 1954; in 1957, both series have reached a constant level, despite a reasonable harvest in that year, and a very good one in 1955; the marketable ratio has returned to a level almost identical to that in 1952. Thus, despite all the rapid changes and the increased output, there was no growth at all in the marketable ratio. The implication of this is mirrored in the consistent falling trend of food-grains availability (n.b. not per capita consumption) to the non-agricultural population which can be seen from columns 2 and 3 of Table II.

TABLE II

Year	Non-Agricultural Population (m) (1)	Food-grains Availability per Head ¹⁾ (Catties)* (2)	Kg per Head (3)	Ration: National Average† Kg per Head (4)
1952	140.5	498	249	
1953	146.5	615	307.5	
1954	155.4	630	315	
1955	158.1	585	292.5	210
1956	166.1	515	257.5	211
1957	171.4	514	257	213

¹⁾ Applying a reduction factor for processing, seed and fodder (0.681).

* Liu and Yeh, *The Economy of the Chinese Mainland*.

† 1 Catty = 0.501 kg.

The failure of the agricultural surplus to grow relative to the rest of the economy is also reflected in the falling importance of the agricultural tax in kind as a proportion of total government tax receipts, a point to which we shall return when discussing methods of mobilizing the surplus.

In addition, it is interesting to note from Table II, the superior availability of food-grains in the non-farm areas, relative to the estimated minimum consumption levels calculated for the economy as a whole by Liu and Yeh. This factor, bearing evidence of the efficacy of the Government's extraction policy, should not, however, be taken as meaning an actual concession to the urban areas. On the contrary, in 1955, the Communists enforced a fairly strict rationing policy, which kept urban per capita consumption constant and declining availability in face of a constant consumption requirement meant at best a relative and, at worst, an absolute decline in State grain reserves. This latter was, in fact, what occurred.

In 1953/54, Government purchases of grain exceeded sales by 6.3 mmt, but by 1956/57, the opposite situation was occurring; stocks were being depleted as Government sales exceeded purchases by 3.3 mmt.

Finally, the fact that the marketable ratio declined after 1954 in face of the

rising trend of output per head,³ suggests that rural consumption levels rose over the period. This, of course, immediately follows from the basic formula but is also, as I hope to show, perhaps not unreasonable to accept in view of the background economic circumstances.

II

I. Methods of Extracting the Surplus

Basically, there is no real meaning to discussing individually, as I am going to, the different methods that the Chinese have adopted to mobilize their surplus for rapid industrialization. All these policies are interrelated not only to each other, but also to the general strategies of development of the economy. Thus, rationing was probably necessitated by the failure of the planned purchase and supply policy, yet planned purchase and supply was more or less dependent on the calculation of an adequate ration for the peasants i.e., de facto rural rationing. The use of price stability was necessitated by the planned purchase and supply and also by the need to keep urban costs low and assist socialist industrialization based on heavy industry. The co-operativization drive was tied up with the desire to extract a bigger surplus through the imposition of uniform living standards. Perhaps the measure that shared at least some independence from the others, although it was an integral part of general policy, was the use of the agricultural tax which had been long in existence before 1952. It seems logical to start with this.

A. Many writers, when discussing taxes as an element of the surplus, like to make the distinction between a financial and a real surplus. I feel this is rather a perpetuation of a solacism; any financial surplus must be based on real surplus. In addition, since the Chinese agricultural tax was paid to the extent of 90 per cent in kind, primarily grain, it does not make much sense to me in making a distinction in this context.

The agricultural tax was based on set yields of land, i.e., based on the expected value of output, not on the value of land; it took into account the natural productive capacity of the land, the extent of irrigation and the use of fertilizer.

³ A trend that is more obvious if we take production per head of the agricultural population rather than as per head of total population as in the following table:

	(kg)	
	TO TP	TO AP
	<i>(Western Estimate)</i>	
1952	296	396
1953	284	382
1954	282	386
1955	301	410
1956	278	394
1957	286	397
1958	310	

TO = Total Output.

AP = Agricultural Population.

TP = Total Population.

The Chinese applied both progressive rates, i.e., increasing with per capita production, or proportional rates of tax, depending on how far land reform had advanced. After collectivization in 1956, progressive taxation lost its meaning since all co-operatives income was now shared and its distribution based on individual effort, so that progressive taxation had no meaning and proportional tax rates were slowly introduced.

A clear advantage of this land tax, unlike so many taxes on the agricultural sector is that, apart from being progressive, its operation minimized disincentive effects. The peasants could minimize their grain obligations in tax by maximizing their output, thus giving them an incentive to develop their land and increase production, with no danger of immediately increasing their rent obligation, since the authorities kept constant for some time the value of the normal yield used in assessing tax liability. Also, after co-operativization, the peasants only indirectly felt the effects of the tax through a reduction in their share of income from the co-operative which now became the tax-paying unit. On the other hand, it also clearly paid them to underestimate the productivity of their land in order to minimize their grain obligations, and this had disadvantages in underreporting. There is also an economic disadvantage with respect to resource allocation arising from the requirement of the tax to be paid in kind; the peasant was forced to grow grain to pay his grain tax whereas tax payment in money with subsequent state purchases on the market might enable him to grow that crop which was either in highest demand, perhaps cotton, or most suitable to his soil.⁴

The declining importance of the agricultural tax in favour of State taxes on Industry and Commerce in total tax receipts, is shown by Table III.

Despite minimizing disincentive effects, the agricultural tax, by being stabilized at around its 1952 level, did not grow in step with other sources of revenue, a fact reflecting both the nature of the tax, and the slow recovery of agriculture. The tax was used for several purposes: (a) since it accounted for over 1/3 of all marketed grain supply, it was clearly a vital source of food for the urban

TABLE III
AGRICULTURAL TAXES IN CHINA

Year	Agricultural Taxes (1)	Total Tax Receipts (2)	(1) × 100 (2)	Industrial and Commercial Taxes (3)	(3) × 100 (2)
1950	1,910	4,898	38.9	2,363	48.2
1951	2,169	8,113	26.6	4,745	58.5
1952	2,704	9,769	26.6	6,147	63.4
1953	2,711	11,967	22.6	8,250	69.0
1954	3,278	13,218	24.6	8,972	67.8
1955	3,054	12,245	23.2	8,725	68.5
1956	2,965	14,088	21.0	10,098	72.1
1957	2,970	15,490	19.1	11,300	73.1

Source: G. Ecklund, *Government Revenue in China, 1949-59*.

⁴ [2].

workers; also no change to a money tax was called for; (b) in conjunction with official price policy, the tax could be used to manage the distribution of land under various crops e.g., food-grains vis-à-vis cotton, thus it proved an important element in stimulating production of cotton or grain as required; (c) by using different rates on co-operatives between areas, the Government could use the tax to assist the vital problem of redistributing grain from grain surplus to grain deficit areas.

In general, the land tax was one of the progressive elements of the tax structure; however, the fact that the marketed ratio (a) changed its magnitude during the stable yield period and (b) continued its downward trend after a switch to a proportional system was made, suggests that the functioning of the agricultural tax was not an important determinant of the marketable ratio in the period 1952-57.

B. Planned purchase and supply of food-grains and rationing were two of the most important measures used by the Communists to extract the surplus. It is meaningful to discuss them together since the one more or less implied the other; you could not ration without knowing supply availability; you could not know what surplus could be made available until you had decided on a quota that seemed reasonable for retention by the peasant. Hence, although urban rationing did not come into force until the summer of 1955, rural rationing had been in progress, in fact since the institution of the compulsory quota scheme in November 1953. This scheme, initially for food-grains, but subsequently extended to cotton and oil-seeds, was introduced in light of the continued failure of State trading organizations to acquire sufficient grain on the free market to redistribute to the urban working classes and the rural, non-agricultural workers. Perkins⁵ considers that the sales of the State "were running several billion catties (1C = ½ kg) ahead of purchases." The immediate reason for the schemes introduction was a poor harvest in 1953, and the disadvantages for the surplus of the levelling tendencies of land reform.

Under the new arrangements, which were constantly refined and increased in severity throughout the period, the peasants were obliged to sell grain to the State in accordance with quantities, varieties and prices fixed by the Government. Later in early 1955, with the adoption of the Three-Fix policy, the State, through the action of the party cadres, further impinged upon individual peasant households' freedom of disposal by fixing (a) their total production quota, (b) their purchase quota for compulsory sales to the State, (c) the purchases required for areas that were deficient in grain supplies. Within this framework, then, the peasants were *forced* to sell 80-90 per cent of their surplus, as it was estimated for them, to the State. However, the State demands became extortionately high in 1954 and very soon the peasants reacted; they did so by reducing the gross amount of their quota by whatever means they could—misreporting, enlarging as much as possible their own consumption, requirements as well as those for seeds and co-operatives reserves, by failing generally to maximize the rate of growth of output. However,

⁵ [6].

the extent of Government acquisition may be conceived of by the amazing result that between 1953 and 1955 the Government's increased purchases amounted to twice the increase in gross output.

The State quickly realized that its demands had been too high for 1954 and cut back its quotas in 1955, basing them on normal yields. However, the damage appears to have been done; livestock suffered from a lack of fodder; State purchases fell despite a good harvest in 1955/56 and there was a further fall in total State collection of grain and a reduction in stocks, in 1956/57. In fact, 1956/57 saw the worst crisis of the period; the rightist campaign gives every indication of a realization by the peasants that they were suffering at the expense of the urban areas—"Farm workers eat too little, workers eat too much." Government sales again exceeded purchases and the old problem of the earlier years returned, without, this time the opportunity to introduce purchase quotas.

Thus the principal problem with respect to the purchase and supply system arose out of the fact that China's total agricultural productivity was low, so that the Government's power to dispose of any surplus output was continually resisted by the farmer. The stronger the demand of the Government, the harder it appears the Government attempted to extend its authority over the disposal of output e.g., by the use of the 40 per cent clause of the Three-Fix program. The Central Government and local cadres appear to have over-zealously demanded from the farmers who inevitably answered by providing less. The order of priorities often blindly put the requirement of the purchase quota above those of seeds and reserves for fodder, which again adversely influenced the future rate of growth.

Despite the talk of food crises, the rural-urban migration continued as an indication of the effectiveness in feeding the towns of the Government's coercive extraction policy. Urban rationing, introduced in August 1955 was a response not so much to the food shortage of the earlier months which seems to have been worse in the country than the towns, as a desire to keep purchases required from the countryside, down to a lower level after the overstepping of the previous year. Some argue, however,⁶ that since the ration of 210 kg per head imposed was still lower than the prewar level per capita consumption, it would be unrealistic to look for any other reason for its introduction than general food shortage, and a need to supervise its distribution. Whatever the underlying circumstances were, however, it is clear that the Peking Government found rationing an attractive option for many reasons. They used it to combat the feeling of the agricultural sector that the urban workers were being too favoured; it was an important element in maintaining price stability and thus keeping down wages to allow for greater accumulation; it was an exceedingly powerful weapon in controlling rural-urban labour movements.

Rationing was to be effected in any of three ways: by the use of booklets, by coupons, or by identification certificates by which the individual purchaser became registered with a particular store. All sorts of practices were devised to overcome the ration quota—hoarding of coupons, selling and buying both coupons

⁶ [5].

and grain on the black market, discussion and agitation to get the ration raised. In general, the authorities reacted effectively to the pressures of the moment (a) by allowing an element of individual influence in determining the amount of the ration, (b) by raising the quota in times of difficulty and (c) by tightening control over evasion and coupon hoarding e.g., by printing coupons valid for a certain fixed period.

The method of determining the amount of the ration was usually by group discussions within a certain urban group or a collective, and the amounts allowed varied according to age, sex, and type of work performed. Some examples of the amounts involved are shown in Table IV.

TABLE IV
URBAN RATIONING

Recipient Class	National Average*	
"Heavy" labour	508	} average 486
"Exceptionally heavy" labour	638	
"Light" labour	405	
Students: Middle school	357	
Children: 6-10	254	
3-6	163	}
3	90	

Note: These are estimates based on official Communist Production figures for 1957, and are higher than Liu and Yeh's own estimates given in Table II.

* Catties of processed food-grains per person: 1C=0.501 kg.

Although the system was fairly effectively executed, it is likely that actual consumption per head was something like 10-15 per cent above the Liu and Yeh ration estimate. Were this so, urban consumption levels would be almost identical to the level of rural grain availability per capita of 284 kg as it may be estimated from Table I. This gives a further indication of the extent to which rural areas had gradually pushed up their own grain consumption over the period.

The basic problem underlying both purchase quotas and rationing was however the same; the insufficiency of the supply of food-grains and light consumer goods relative to the amount demanded. In face of their unwillingness to alter their heavy industry priority in any way, the Government by the end of the period had created a system whereby it acted as the middle man between in-payments of grain through quotas and out-payments regulated by rationing. This all-pervasive system had made rationing easier to carry out and no doubt increased the marketed portion of food-grains above what it might otherwise have been.

C. The measure, sometimes suggested for extracting the surplus, of moving the terms of trade against agriculture so forcing more marketing of grain in order to get a fixed "bundle" of consumption goods from the towns, was not

forcefully adopted by the Communist Government, although the terms of trade between what the farmer sold and what he bought did decline during this period according to one writer.⁷ The most important strategy adopted in order to assist the Communist industrialization program was price stability. Prices remained remarkably stable over this period, the wholesale price index moving only from 100 (1952) to 99.4 (1957). Conversely, the use of any sustained price concessions to the agricultural sector was precluded for two reasons. Firstly, any rise in the prices paid to agriculture would increase peasant incomes and consequently, the demand for consumer goods from the towns, which were just not available. Secondly, rising food costs could mean rising wages through the rising cost of living mechanism, thus forcing the Government to redirect resources away from their heavy industry program. Low agricultural prices also means superior export capabilities and since foreign trade was a Government monopoly, this increased the profits to the Government. This strategy of maintaining price stability was not, however, a concession to the urban workers; with their per capita consumption limited by rationing of food-grains and the price of agricultural products low and stable, the Government was able to keep wages low and retain, in true Lewis fashion, the surplus of their productivity for use as reinvestment in plant and equipment.

However, the fact that the terms of trade did not move very greatly against the peasants must not obscure the fact that there was indeed an enormous spread between the State's procurement price of grain (which was not really low relative to what the market price might have been)⁸ and other agricultural commodities, and the retail prices of industrial goods sold by the towns. It does seem to make sense here to talk of a financial surplus—the purchase of goods by the peasants and collectives did induce a financial flow to the cities, which was not answered by a concomitant outflow of money from the towns in payment of agriculture's produce. Ishikawa's finding that the rural sector suffered a continual worsening balance of payment vis-à-vis the towns ever since 1953⁹ is documentary evidence of this. Basically, the fact was that the rural areas ran an import surplus since 1954, a surplus representing a financial flow to the towns. The cities, or ultimately the profits of State enterprises were being financed by scant resources of the peasants.

Finally, in this context, it is interesting to note that the Communists made use of price incentives to increase production of certain subsidiary products during the period; for example, the reintroduction of a limited free market in December 1956 to attempt to raise subsidiary output, such as hog rearing, poultry breeding, etc., which had suffered from the severity of the earlier years. Also, official raising of hog prices between 1954 to 1957 of about 14 per cent served to stimulate a 40 per cent rise in output. Thus, the Communists found the manipulation of price incentives, which was more or less synonymous with the

⁷ [1].

⁸ [6].

⁹ Taking his deflated estimates of resource flows.

reintroduction of the free market, in certain limited fields and confined to certain subsidiary products, an effective measure of inducing greater output and, *cet. par.*, a greater marketable surplus, from the farmers.

In summary, the channeling of resources for industrialization from Agriculture to Industry was effected by keeping industrial prices high, agricultural ones low, and forcing the peasants to pay heavily for industrial development.

D. The final measure to be mentioned that was adopted by the Communists for extracting the agricultural surplus was an institutional one. Although the drive to establish co-operatives had been official strategy from very early on, it was only in July 1955 that the Communists adopted rapid collectivization as a possible solution to the failure of the State to acquire a sufficient food-grains surplus. The collectivization drive, from July 1955 to Summer 1956 had as its immediate causes the floods of December 1954 and the reaction of the peasants to the excessive Government's purchases of their produce in 1954, resulting in inadequate (by Communist criteria) purchases in 1955.

There were four main arguments put forward for adopting an institutional solution. The co-operatives, by being better able to organize land and labour, were conceived of as being thus able to set aside a larger proportion of output for reinvestment. Secondly, the Communists hoped that the co-operative unit could be more easily planned and managed and thus geared to the needs of the State *i.e.*, to the needs of provisioning the urban areas. A third argument, quite fallacious as it turned out, was that the mutual aid teams (the forerunner of the co-operative) and the co-operatives marketed a higher proportion of their grain output and were of superior national conscience than the rich peasants who, by refusing to sell surplus grain to the State, were jeopardising the whole planned purchase and supply strategy. Finally, the Government argued the case for co-operatives on the grounds that they could extract a greater surplus by offering higher prices to those with a higher potential surplus without the danger that this would result in inequalities within the members of the co-operative or a rise in wages at the expense of investment. Thus, the institutional option was bound up with the State's purchase policy which it was hoped to assist, as well as the overriding objective of pure socialism.

2. Reasons for the Failure of the Marketable Ratio to Grow

Despite all these measures that were adopted, taking the period 1952-57, as a whole, the marketable ratio, as we have seen, displayed no growth at all.

Two main reasons for this failure are the rapid rate of growth of population and the general failure of total agricultural output to grow. Rapid population growth, adding in each year, inexorably to the already high members, was the greatest burden of all. Each new mouth to feed was a leakage from the surplus that could have been made available to improve existing consumption standards. This growth, immense in absolute terms, was coupled with the adoption of a heavy industry strategy which kept labour absorption prospects into the town, very unfavourable. Agriculture was forced into effecting a mammoth holding operation of its surplus labour; the surplus was being eaten away.

The lack of agricultural progress, attributable mainly to the failure to realize the technical advantages of chemical fertilizer, improved seeding, better tools, etc., further exacerbated the problem of overpopulation. The low levels of per capita consumption and production made for very high values of the income elasticity of demand for food. The ratio was still on the rising segment of its curve. The peasants were likely to have taken every opportunity, therefore, during this period to increase their own consumption from what they rightly felt to be quite an inadequate level. The upward creeping of rural per capita consumption during this period from low levels, a trend further precipitated by the increasing severity of Government policy of surplus extraction that forced peasants more and more to look to their own consumption standards first, and the needs of the State and towns next, provides a fundamental reason for the failure of the marketable ratio to grow and the persistent tendency of the potential surplus to be greater than the actual surplus attained.

Another essential reason for the failure of the marketable surplus to grow is to be found in the levelling tendencies of the period. First land reform, followed by co-operativization and collectivization involved the discrimination against first landlord, then rich peasants and middle peasants, which sectors had universally had higher marketable ratios than the poorer peasants. The argument that co-operatives marketed a greater proportion of their output than the richer peasants had done, was quite invalid.

Thirdly, the Government adopted policies which displayed scant respect for individual incentives and suffered consequently from the development of a peasant individualism. The rural areas lived in perpetual envy of the towns whose consumption standards they felt to be higher, and to be so at their expense. The Government was unable to co-ordinate a mutual confidence in its ability to equalize living standards between town and country. People continued to move to the towns, drawn by their (probably correct) ideas of the superior living standards, whereas the fact seems to have been that during this period, rural consumption levels were slowly catching up, *par défi* as it were, on those in the cities.

The planned purchase and supply policy showed itself to be unfeeling for peasants' motivation: the emphasis was on gross acquisition now with little consideration of what the future consequences might be. The results soon became obvious—misreporting, failure of purchases to reach previous levels after 1954, increased peasant agitation, failure of output to grow. The Chinese farmers could probably have put up with the severe extraction (they are a long suffering race) had their initial productivity been higher; but it was not, so any attempts of the Government to acquire that little extra which the peasant might have used to improve his own situation was progressively resisted and the marketable ratio consequently stagnated.

The Communists were foolish if they ever believed that institutional change could raise, by itself, the marketable surplus. They could not overcome the problem of incentives arising from the fact that each worker had now to work, not only for himself, but for everybody else as well; nor the problem of the contradiction within the co-operative between time spent working for the co-

operative, and time spent working on the private plot; nor finally the internal conflict between different classes of peasants and the discrimination against rich and middle, surplus-providing peasants. Although some commentators seem to believe that co-operatives had the effect of raising Saving and Investment rates, it seems most likely that the general uncertainty over ownership that prevailed had the effect of lowering investment activity and certainly blunting any motivation to maximize output. The co-operative and collective proved no substitute whatsoever to the functioning of price incentives in their ability to mobilize a surplus of food.

Lastly, the marketable ratio failed to grow because the Communists never fully rationalized the order of priorities they desired in disposing of farm output. Were the needs of the Government in the guise of tax and purchase quotas to precede or antecede the requirements of the peasants for food, seed and animals fodder? The evidence seems to suggest that in some years, the Government took grain that ought to have gone to these other sources and thus, naturally, affected by their own lack of foresight the future marketable ratio.

One important qualification must be made to the idea that the marketable ratio failed to grow to the end of the period, namely that it was probably not absolutely necessary for it to do so. The Government built up, in the early years, large amounts of stocks in hand which were available to redistribution in the difficult years after 1954. Only in 1956/57 did Government sales exceed purchases of grain.¹⁰ Increasing control of migration to urban areas was also adopted in response to the problem of unreliable food supplies and further reduced the required growth in acquisitions. The stress on the failure of the marketable ratio to grow should not overlook this aspect, but an analysis of the determinants of such a failure, does lay bare the wide range of problems involved in attempting to establish an economic system not based on the free market mechanism.

3. Conclusion

The policies adopted by the Communists for mobilizing the surplus were in general effective and necessary, even if not paying sufficient attention to individual human motivation. It was rather the existence of two fundamental conditions that must be taken as the basic causes of the failure of the marketable ratio to grow—(a) the fast rate of growth of the population adding annually in absolute terms, gigantic numbers of people to the agriculture regions which were already overstretched in meeting existing needs, and (b) the failure of agricultural productivity to grow. In the light of these two damning conditions, it is amazing that the Communist Government managed to extract as much as it did.

¹⁰ Government stocks in hand (purchases minus sales) were as follows:

1953/54	6.3	(m.m. tons)
1954/55	2.3	
1955/56	5.8	
1956/57	-3.3	

REFERENCES

1. CHOU, S. H. "Prices in Communist China," *Journal of Asian Studies*, Vol. 25, No. 4 (August 1966).
2. DONNITHORNE, A. "State Procurement of Agricultural Produce in China-I," *Soviet Studies*, Vol. 18, No. 1 (July 1966).
3. ISHIKAWA, S. "Resource Flow between Agriculture and Industry: The Chinese Experience," *Developing Economies*, Vol. 5, No. 1 (March 1967).
4. KHAN, N. A. "Resource Mobilization from Agriculture and Economic Development in India," *Economic Development and Cultural Change*, Vol. 12, No. 1 (October 1963).
5. LIU TA-CHUNG, and YEH KUNG-CHIA. *The Economy of the Chinese Mainland* (Princeton, N. J.: Princeton University Press, 1965).
6. PERKINS, D. H. *Market Control and Planning in Communist China* (Cambridge, Mass: Harvard University Press, 1966).